

# Diamond ABS 3501RS.1002 NAT

## LyondellBasell Industries - Acrylonitrile Butadiene Styrene

### General Information

#### Product Description

Diamond ABS 3501RS.1002 NAT is a Acrylonitrile Butadiene Styrene material and is typically used in Injection Molding applications. Features include: High Impact Resistance.

#### General

Features	<ul style="list-style-type: none"> <li>High Impact Resistance</li> </ul>
Forms	<ul style="list-style-type: none"> <li>Pellets</li> </ul>
Processing Method	<ul style="list-style-type: none"> <li>Injection Molding</li> </ul>

### Properties<sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.05		ASTM D792
Melt Mass-Flow Rate (MFR) <sup>2</sup>			ASTM D1238
200°C/5.0 kg	2.0	g/10 min	
230°C/3.8 kg	5.0	g/10 min	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>3</sup> (Yield)	6500	psi	ASTM D638
Flexural Modulus - Tangent <sup>4</sup>	328000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	5.6	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	106		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.125 in	171	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Annealed, 0.125 in	201	°F	
Vicat Softening Temperature	219	°F	ASTM D1525 <sup>5</sup>
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176 to 185	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	374 to 482	°F
Middle Temperature	374 to 482	°F
Front Temperature	374 to 482	°F
Mold Temperature	104 to 176	°F
Injection Rate	Moderate-Fast	